

# IMPROVEMENTS 2015

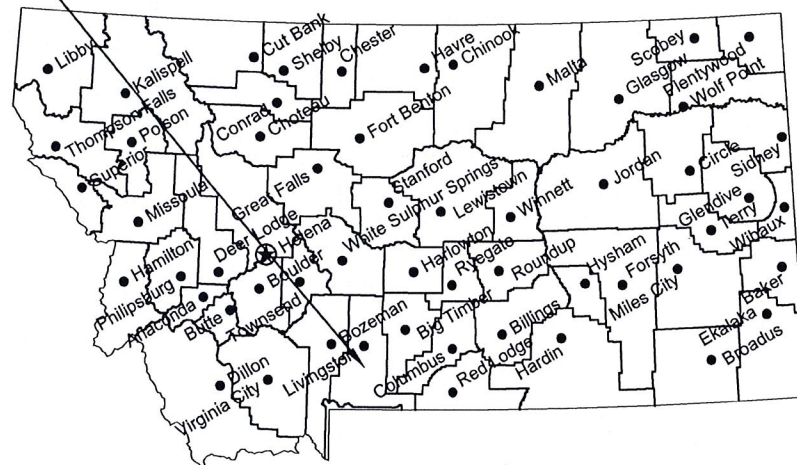
# LOCH LEVEN

# FISHING ACCESS SITE

PRAY, MT

FWP # 7133712

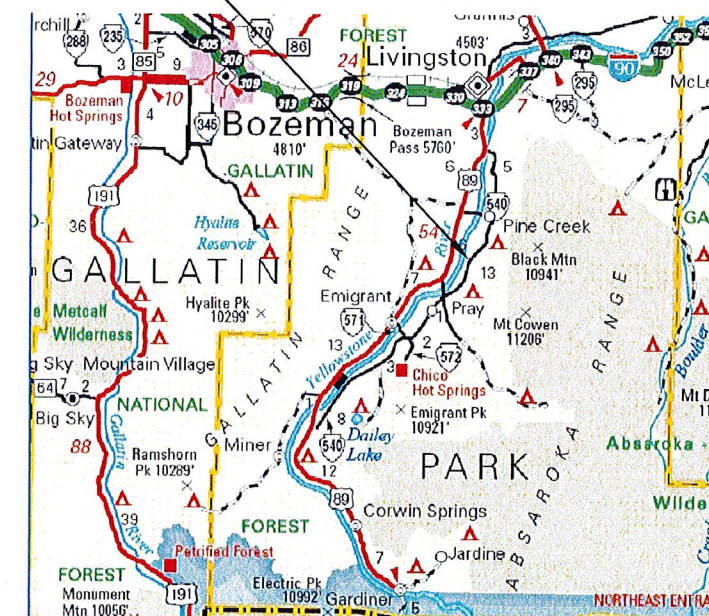
PROJECT LOCATION



**Location Map**

No Scale

PROJECT LOCATION



**Vicinity Map**

No Scale

North



MONTANA FISH, WILDLIFE AND PARKS  
DESIGN AND CONSTRUCTION BUREAU

MAILING ADDRESS:

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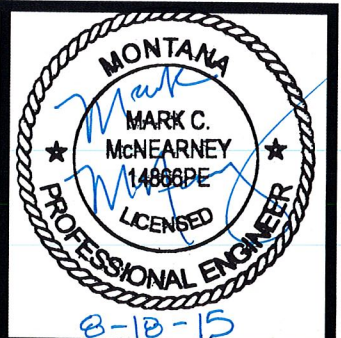
fwp.mt.gov/Doing Business/Design&Construction

PHYSICAL ADDRESS:

1522 9th AVENUE  
HELENA, MT 59601

## DRAWING INDEX

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J. Kevin McDonnell

4.2015

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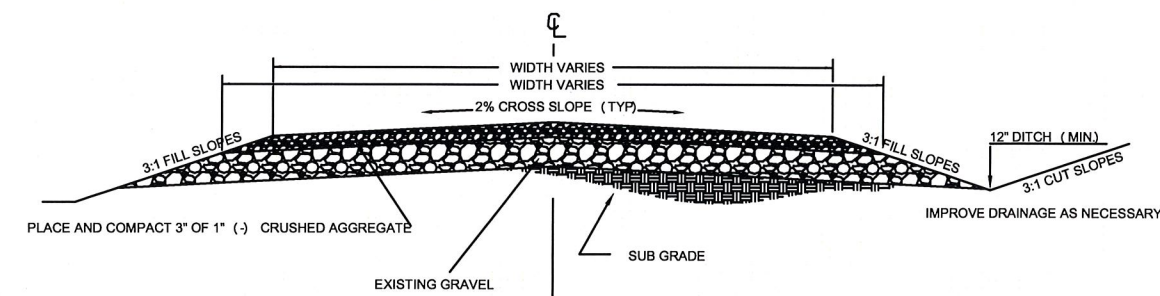
COVER

Loch Leven FAS near Pray, MT



SHEET: 1 of 6





**TYPICAL SECTION A : GRADE AND GRAVEL EXISTING ROAD**  
NOT TO SCALE

**NOTES:**

1. SHAPE BLADE THE EXISTING ROAD MATERIAL TO DEPTH SUFFICIENT TO REMOVE POTHOLES, WASHBOARDS, RESTORE CROSS SLOPES AND ESTABLISH UNIFORM GRADES.
2. IMPROVE THE DRAINAGE DITCHES ADJACENT TO ROADS AS NECESSARY.
4. COMPACT EXISTING GRAVEL SURFACE PRIOR TO PLACING NEW CRUSHED GRAVEL SURFACE.
4. PLACE AND COMPACT 3" OF 1 1/2" (-) CRUSHED TOP SURFACING
5. NARROW ROADS ( LESS THAN 14') MAY BE CROSS SLOPED IN ONE DIRECTION.

**Overall Site Notes:**

- 1) FWP Engineer will stake radius points, parking corners, centerline stations of alignments and provide reference elevations.
- 2) All excess excavated material from the stripping of top soil shall be placed on disturbed areas and seeded. All areas disturbed during construction shall be seeded. Refer to Section 02936.
- 3) Excavated material from the parking area islands, not suitable for topsoil, shall be used as base coarse material for the parking area. The estimated quantity is 254 cubic yards.
- 4) Remove all barrier posts from around the parking area and interior to the parking island and dispose of in a safe and legal manner. Fill holes to elevation of surrounding ground surface.
- 5) All material removed from the site shall be disposed of in a safe and legal manner.
- 6) Transitions from new graveled areas to vegetated areas shall be uniform, well defined, and follow the alignment of the roads and parking layouts.
- 7) The contractor shall be responsible for controlling dust created during the construction process by watering access roads to and within the Loch Leven FAS. The cost of the dust control measures shall be included in the Mobilization cost.
- 8) The Contractor shall use best management practices to prevent silt, soil and debris from entering the water. Biodegradable straw wattle is recommended between the work areas and river.
- 9) Equipment used in or near water shall not leak fluids. It shall be power washed before use on the site and examined by the engineer.
- 10) Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
- 11) The contractor is responsible for locating and protecting utilities within the construction area including access routes to the construction area.
- 12) The contractor is required to notify and coordinate all work activities with the FWP Project Engineer. Public notification of partial site closure may be necessary, and requires a minimum notice of seven days.
- 13) Submittals are required on all products used in the project. refer to specifications for submittal requirements.
- 14) Provide all temporary signing, personnel and traffic control devices as required by federal, state and local regulations.
- 15) Geotechnical Information: The soils at the site are sandy loams stratified with coarse sand and gravel. the depth to a restrictive feature is over 80 inches.
- 16) The Owner is responsible for obtaining all necessary permits.

**LEGEND**

- MAJOR CONTOUR ( 5 FOOT INTERVAL)
- MINOR CONTOUR ( 1 FOOT INTERVAL)
- ROADS AND PARKING- EXISTING
- ROADS AND PARKING - NEW
- FENCE- EXISTING
- FENCE - NEW
- GRAVELED AREAS
- BARRIER POST
- BARRIER ROCK - NEW
- BARRIER ROCK - EXISTING
- WATERLINE ( 5/10/13)
- COTTON WOOD TREE
- JUNIPER
- CONTROL POINT
- FIRE RING - EXISTING
- PICNIC TABLE - EXISTING
- CATTLEGUARD
- SIGNS
- CONCRETE PARKING BLOCK

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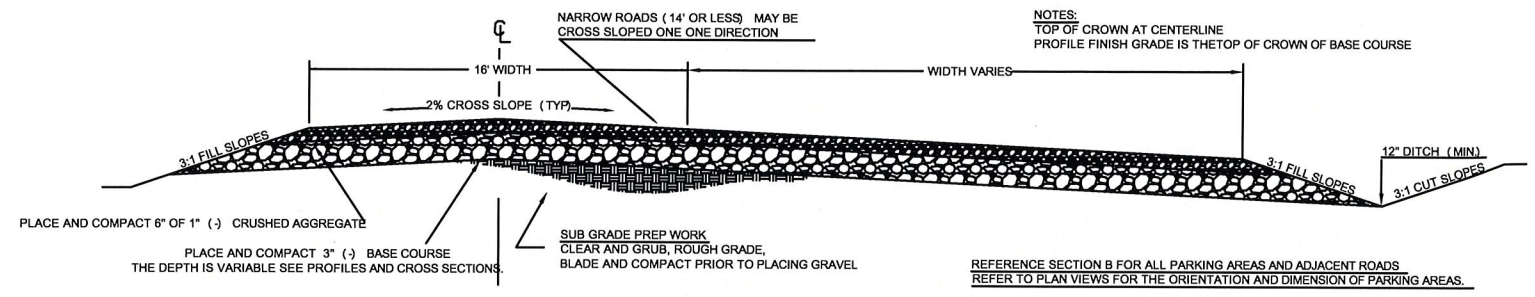
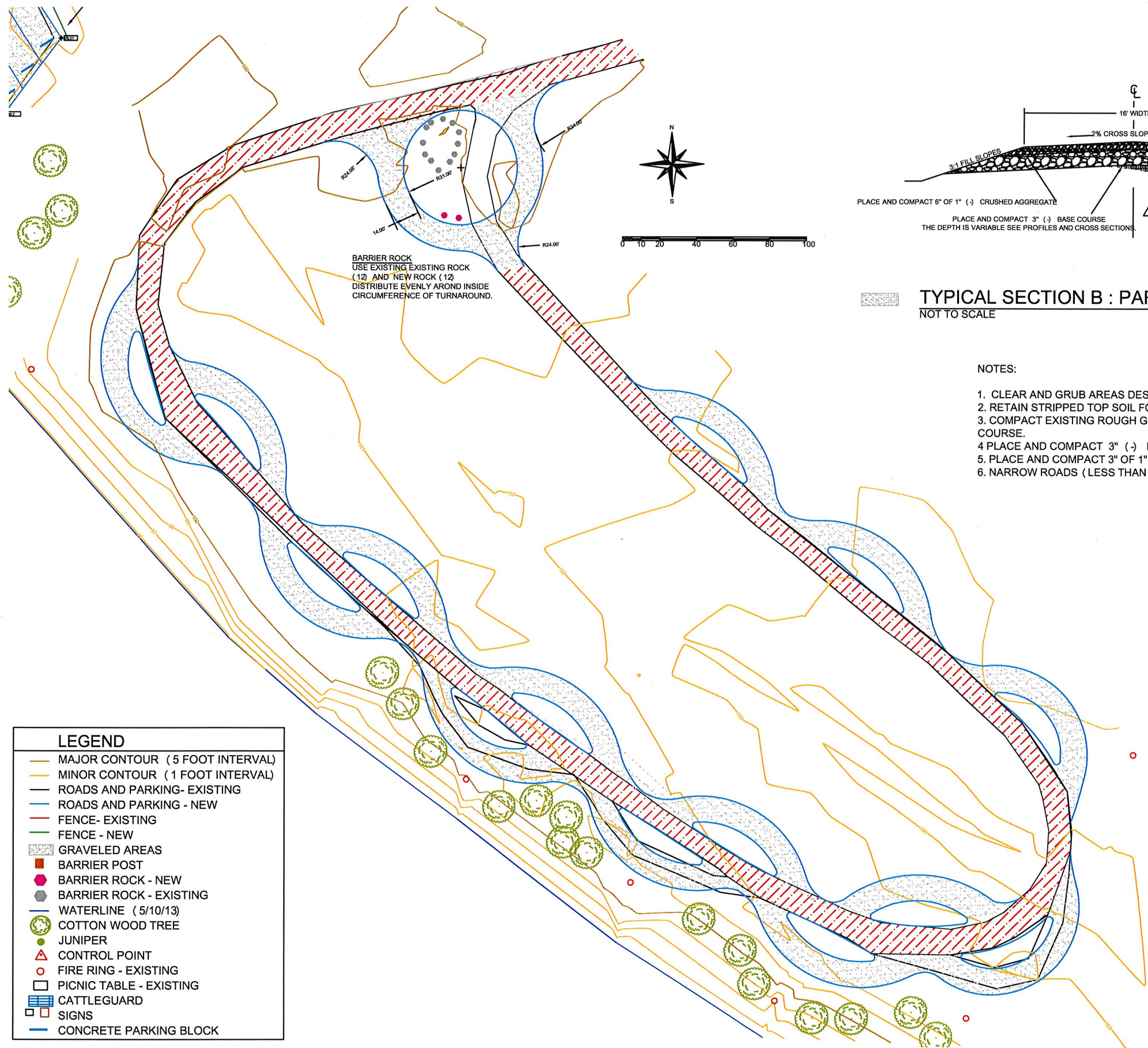
**OVERALL SITE PLAN**  
Loch Leven FAS near Pray, MT

 **SHEET:** 2 of 6



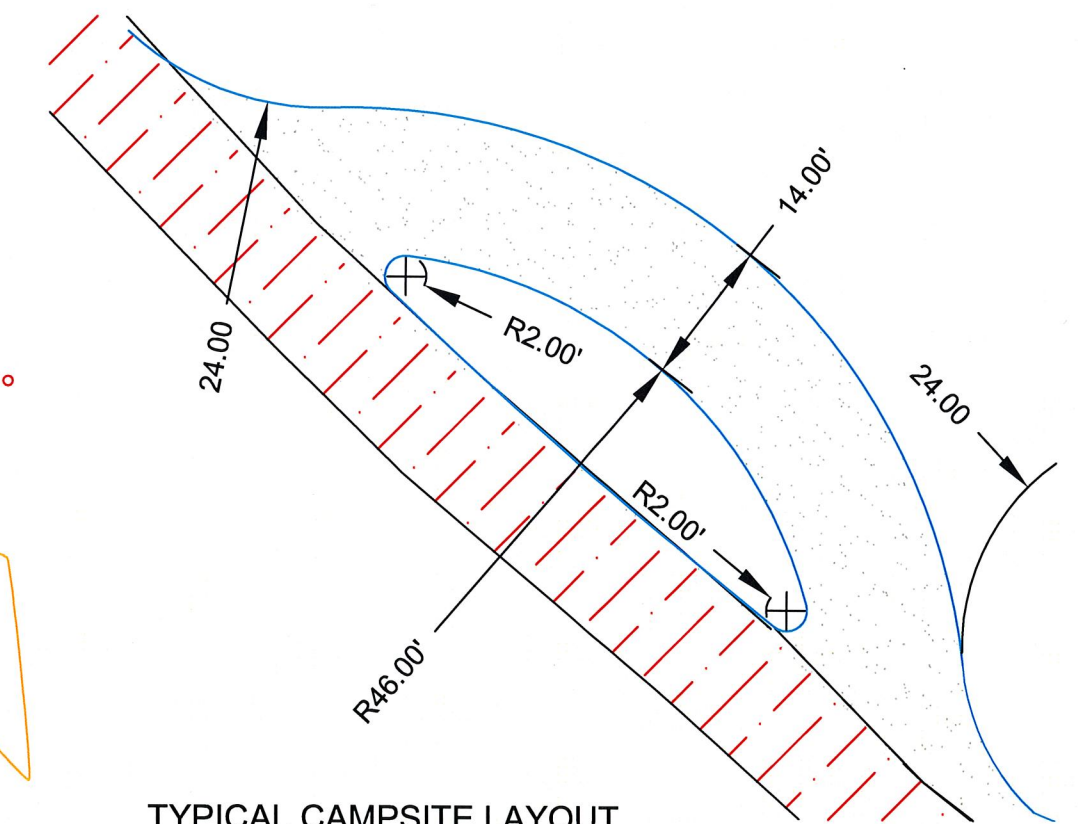






**TYPICAL SECTION B : PARKING AREAS**  
NOT TO SCALE

- NOTES:
1. CLEAR AND GRUB AREAS DESIGNATED FOR PARKING AREA. TOP SOIL DEPTH IS VARIABLE
  2. RETAIN STRIPPED TOP SOIL FOR USE ON AREA DESIGNATED BY FWP ENGINEER.
  3. COMPACT EXISTING ROUGH GRADED SURFACE PRIOR TO PLACING NEW GRAVEL BASE COURSE.
  4. PLACE AND COMPACT 3" (-) BASE COURSE TO DESIGN ELEVATION WHERE NECESSARY.
  5. PLACE AND COMPACT 3" OF 1" (-) CRUSHED TOP SURFACING ON PARKING SURFACE.
  6. NARROW ROADS (LESS THAN 14') MAY BE CROSS SLOPED IN ONE DIRECTION.



**TYPICAL CAMPSITE LAYOUT**

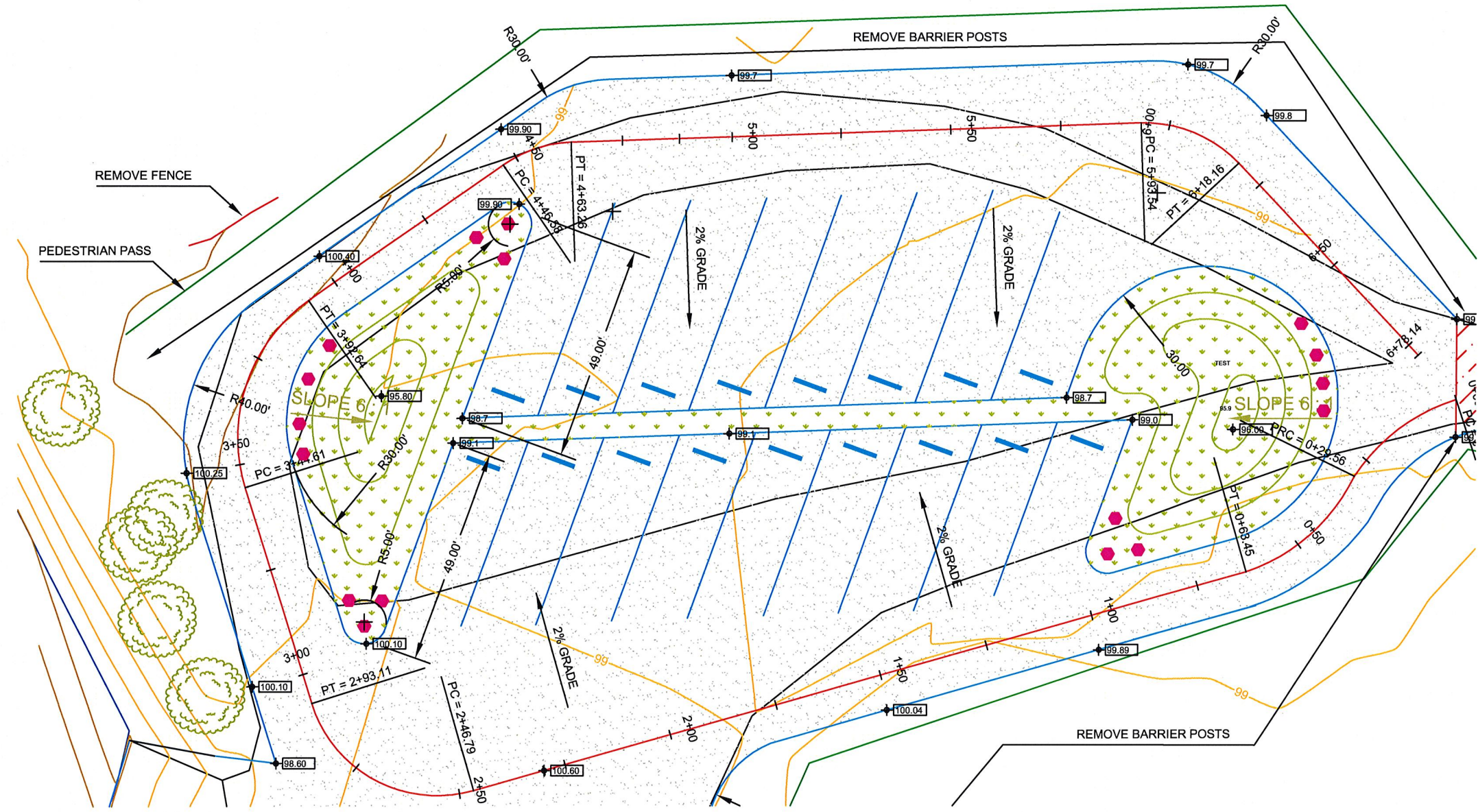
LEGEND	
	MAJOR CONTOUR (5 FOOT INTERVAL)
	MINOR CONTOUR (1 FOOT INTERVAL)
	ROADS AND PARKING- EXISTING
	ROADS AND PARKING - NEW
	FENCE- EXISTING
	FENCE - NEW
	GRAVELED AREAS
	BARRIER POST
	BARRIER ROCK - NEW
	BARRIER ROCK - EXISTING
	WATERLINE (5/10/13)
	COTTON WOOD TREE
	JUNIPER
	CONTROL POINT
	FIRE RING - EXISTING
	PICNIC TABLE - EXISTING
	CATTLEGUARD
	SIGNS
	CONCRETE PARKING BLOCK

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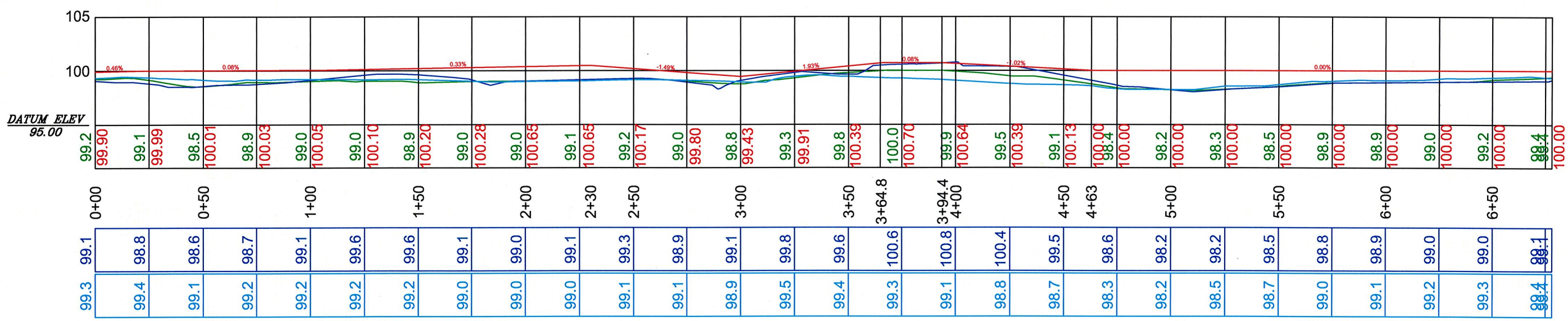


**CAMP LOOP SITE PLAN**  
Loch Leven FAS near Pray, MT





PROFILE LEGEND	
<span style="color: red;">—</span>	BASE COURSE GRADE - CENTERLINE
<span style="color: green;">—</span>	EXISTING GRADE - CENTERLINE
<span style="color: blue;">—</span>	EXISTING GRADE - 6' LEFT OF CENTERLINE
<span style="color: blue;">—</span>	EXISTING GRADE - 6' RIGHT OF CENTERLINE

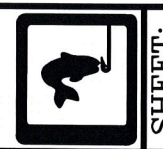


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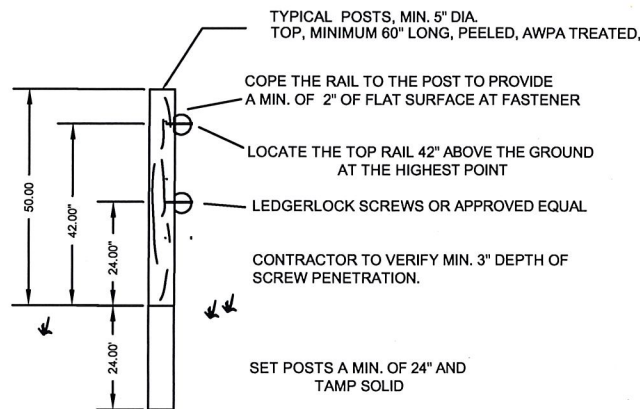
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**PROFILE**  
Loch Leven FAS near Pray, MT

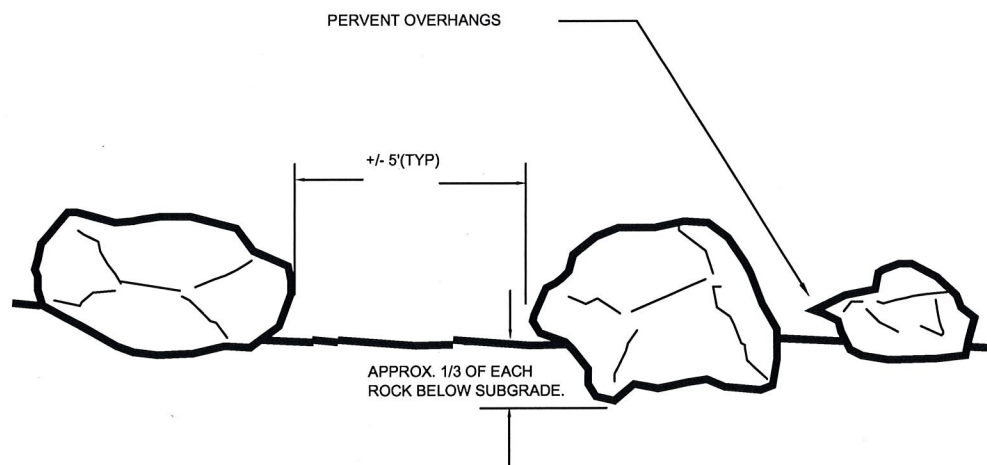
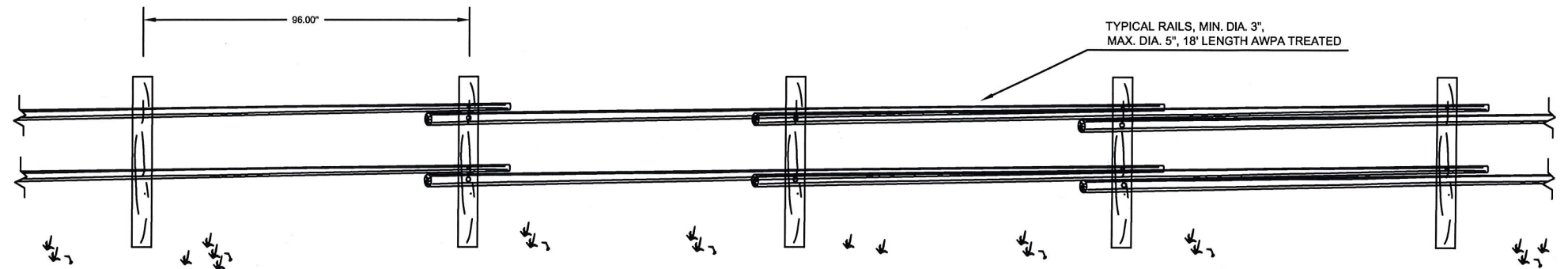


**SHEET:**  
5 of 6





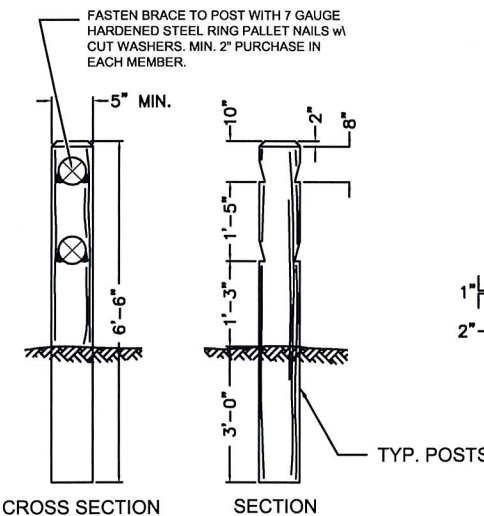
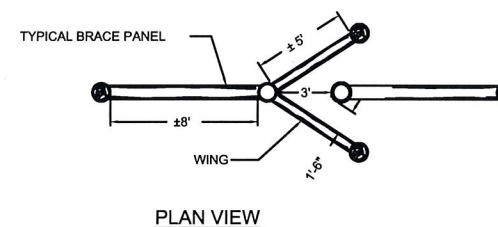
**RAIL FENCE DETAIL**  
NOT TO SCALE



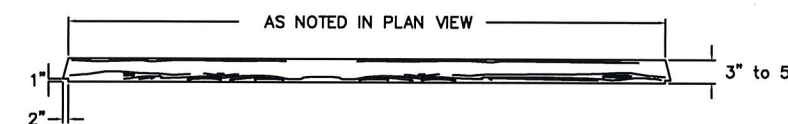
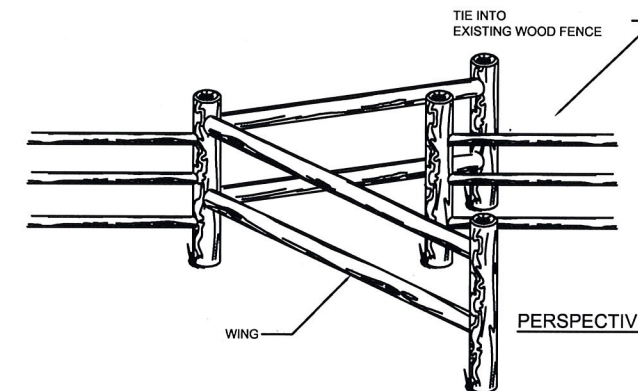
**BARRIER ROCK DETAIL**  
NOT TO SCALE

**BARRIER ROCK NOTES:**

- 1) LANDSCAPE & BARRIER ROCK WILL BE PLACED AS SHOWN ON PLANS OR AS DESIGNATED BY FWP ENGINEER.
- 2) MINIMUM SIZE SHALL BE 6 CF. NO DIMENSION SHALL BE LESS THAN 1/3 OF THE LONGEST DIMENSION.
- 3) ROCK SHALL BE HARD, DURABLE WITH NO MAJOR MACHINE MARKS OR BLEMISHES. SUBMIT THE SOURCE INFORMATION TO THE FWP ENGINEER (5) DAYS PRIOR TO INSTALLATION.
- 4) BARRIER ROCKS SHALL BE SET SO THAT THEIR LONG AXIS IS PARALLEL TO THE GROUND AND ROAD SURFACING. THERE SHALL BE NO ACUTE ANGLES AT THE GROUND LINE.
- 5) APPROXIMATELY 1/3 OF EACH ROCK SHALL BE PLACED BELOW GRADE.
- 6) UNLESS OTHERWISE DIRECTED BARRIERS SHALL BE PLACED APPROXIMATELY 5' APART FROM EDGE TO EDGE.
- 7) THE PROPER FINISHED GRADE WILL BE ESTABLISHED AROUND EACH ROCK.



**POST CROSS SECTION DETAIL**



**NOTE:** BRACE AND POST SHALL FIT TOGETHER SNUGLY. A MIN. OF 60% OF THE END AREA OF THE POLE SHALL BEAR ON THE POST NOTCH. THERE SHALL BE NO GAP GREATER THAN 1/4\"/>

**TYPICAL BRACE RAIL**

**PEDESTRIAN PASS DETAIL**  
NOT TO SCALE

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**DETAILS**  
Loch Leven FAS near Pray, MT



**SHEET:**  
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of  
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